

DETAILED ACTION

1. This is the first Office action on the merits of Application No. 10/587,004, filed 20 July 2006. Claims 1-12 are pending.

Documents

2. The following documents have been received and filed as part of the patent application:
 - Information Disclosure Statement, received on 07/20/06
 - Information Disclosure Statement, received on 10/16/06

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's attorney, Terryence F. Chapman, on 03 September 2008.

The application has been amended as follows:

Abstract:

The abstract has been rewritten as follows:

--A wave gear device, wherein, when a wave generator is in a low speed rotating state, a rolling bearing state is formed by a wave bearing and the wave generator and a flexible external gear are held in a relatively rotatable state and when the wave generator

Art Unit: 3681

is in a high speed rotating state, partition pieces and split side plate pieces forming the retainer of the web bearing are displaced to the outside to stop the rotation of balls in their axes and the revolution thereof. Accordingly, a sliding bearing state is formed by lubricating oil film formed between the wave generator and the flexible external gear and the wave generator and the flexible external gear are held in a relatively rotatable state.--

Claim 1:

- Line 10, “the gear” has been amended as --the flexible external gear--.

Claim 2:

- Lines 8-9, "a fluid lubrication film, and rolling elements" has been amended as --the fluid lubrication film, and the rolling elements--.

Claim 6:

- Lines 7-8, “a prescribed rotational speed or higher” has been amended as --the prescribed rotational speed or higher--.

Claim 11:

- Line 8, “a prescribed rotational speed or higher” has been amended as --the prescribed rotational speed or higher--.

Allowable Subject Matter

4. Claims 1-12 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Claim 1:

The prior art of record fails to show or render obvious a wave gear device comprising an annular rigid internal gear, an annular flexible external gear, a wave generator, and a bearing mechanism, as recited in claim 1; specifically, wherein the bearing mechanism reversibly switches between a rolling bearing state produced by rolling elements, and a sliding bearing state produced by an oil film or another fluid lubrication film, in accordance with a rotational speed of the wave generator.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - Kobayashi (U. S. Patent No. 6,682,220) teaches a wave gear drive, as shown in Fig. 1.

Art Unit: 3681

- Kiyosawa et al. (U. S. Patent No. 5,984,048) teaches a lubricant supplying mechanism for a wave gear drive, as shown in Fig. 1.
- Hao (U. S. Patent No. 5,772,573) teaches harmonic drive, as shown in Figs. 1-2.
- Fickelscher (U. S. Patent No. 5,061,227) teaches a wave generator drive, as shown in Fig. 1.
- C. W. Musser (U. S. Patent No. 3,435,705) teaches a harmonic drive, as shown in Fig. 2.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0900-1730).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3681

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David D. Le/
Primary Examiner, Art Unit 3681
09/03/2008

ddl